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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,384	08/24/2001	John Anthony Tejada	004578.1152	3457

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EXAMINER

HASAN, MOHAMMED A

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,384

Applicant(s)

TEJADA ET AL.

Examiner

Mohammed Hasan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 - 7, 8, 11 and 17 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 9 - 10, 12 - 16, 18 - 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 12/11/2001 is accepted.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 – 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim subject matter which applicant regards as the invention.

The phrase “ a second mirror blank” (claim 4) lacks antecedent basis. Because claim 4 depends on claim 1. The claim 1 refers to a first mirror blank, but not set forth a second mirror blank.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Shen et al (5,282,016).

Regarding claim 1, Shen et al discloses (refer to figure 1) a method for providing optical alignment for a visible wavelength reflective system (e.g., telescope 20) having a primary mirror (22) having a single precision pinhole (30). Shen et al discloses all of the claim invention except securing a mirror to the lathe fixture. However, Shen discloses the primary mirror (22), the secondary mirror (24) and the sensor 32 are supported in their respective positions by a frame (36) (column 4, lines 25 – 49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a lathe fixture in an optical alignment system since the examiner takes official notice of the equivalence of supported frame (36) and lathe fixture for their use in the optical alignment process and the selection of any of these known equivalents to hold the optical components would be within the level of ordinary skill in the art.

Regarding claim 11, Shen et al discloses (refer to figure 1) a method for providing optical alignment for a visible wavelength reflective system (e.g., telescope 20) having a primary mirror (22) having a single precision pinhole (30). Shen et al discloses all of the claim invention except mirror to the lathe fixture. However, Shen discloses the primary mirror (22), the secondary mirror (24) and the sensor 32 are supported in their respective positions by a frame (36) (column 4, lines 25 – 49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a lathe fixture in an optical alignment system since the examiner takes official notice of the equivalence of supported frame (36) and lathe fixture for their use in the optical alignment process and the selection of any of these known equivalents to hold the optical components would be within the level of ordinary skill in the art.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 8 and 17 are rejected under 35 U.S.C. 102 (b) as being anticipated by Shen et al (5,282,016).

Regarding claim 8, Shen et al discloses (refer to figure 1) a method for providing optical alignment for a visible wavelength reflective system comprising: positioning a first mirror (22) on an assembly housing, the first mirror comprising a single precision pinhole (30); securing the first mirror to the assembly housing; positioning a second mirror (24) on the assembly housing, the second mirror comprising a single precision pinhole (30) and the securing the second mirror to the assembly housing (column 4, lines 25 – 49).

Regarding claim 17, Shen et al discloses (refer to figure 1) a method for providing optical alignment for a visible wavelength reflective system comprising:

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positioning a first mirror (22) on an assembly housing, the first mirror comprising a single precision pinhole (30); securing the first mirror to the assembly housing; positioning a second mirror (24) on the assembly housing, the second mirror comprising a single precision pinhole (30) and the securing the second mirror to the assembly housing (column 4, lines 25 – 49).

Allowable Subject Matter

5. Claims 2, 3, 9, 10, 12 – 15, and 18 – 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show the first mirror comprising a tolerance stack-up associated with the lathe fixture of less than 6.0 microns in a single direction, .5 microns in a single direction, a tolerance stack-up associated with the assembly housing of less than 6.5 microns in a single direction and the second mirror comprising a tolerance stack-up associated with the assembly housing of less than 6.0 microns in a single direction, the first mirror comprising a tolerance stack-up associated with the assembly housing of approximately 2.0 microns in a single direction and the second mirror comprising a tolerance stack-up associated with the assembly housing of approximately 2.0 microns in a single direction and the mirror blank comprising bolt holes , the mirror blank operable to be secured to the lathe fixture through the bolt holes.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Bushroe (5,257,051) discloses method and apparatus for adjusting the optical alignment of a film projection system.

Adachi (5,076,689) discloses off axis mirror alignment.

Cook (5,847,879) discloses dual wavelength wide angle large reflective unobscured system.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
February 11, 2004


George E. Jones
Supervisory Patent Examiner
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